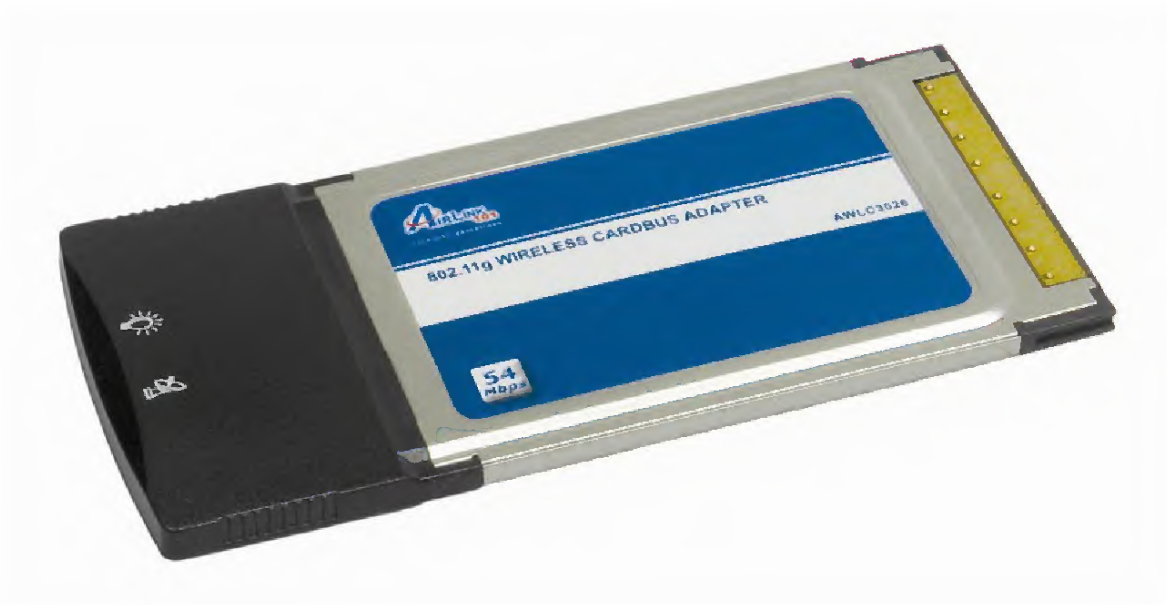

Airlink101 802.11g Cardbus Adapter

Model # AWLC3026

User's Manual

Ver. 1A

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1. Introduction

Thank you for purchasing the 802.11g Wireless Cardbus Adapter. This Cardbus Adapter is designed to comply with IEEE 802.11g Wireless LAN standard and is suitable for notebook computers or desktop computers with a 32-bit Cardbus slot.

This Adapter supports 64/128-bit WEP data encryption that protects your wireless network from eavesdropping. It also supports WPA (Wi-Fi Protected Access) feature that combines IEEE 802.1x and TKIP (Temporal Key Integrity Protocol) technologies. Client users are required to authorize before accessing the APs or AP Routers, and the data transmitted through the network is encrypted/decrypted by a dynamically changing secret key.

Features:

- Compatible with IEEE 802.11g high rate standard to provide wireless Ethernet speeds of 54Mbps data rate
- Dynamic date rate scaling at 54, 48, 36, 24, 18, 12, 9 and 6Mbps for 802.11g
- Dynamic date rate scaling at 11, 5.5, 2 and 1Mbps for 802.11b
- Maximum reliability, throughput and connectivity with automatic data rate switching
- Supports wireless data encryption with 64/128-bit WEP and WPA standard for security
- Integrated micro-strip dual diversity antenna for the multi-path environment
- Drivers support Windows 98(SE), 2000, ME and XP

1.1 Package Contents

Before you begin the installation, please check the items of your package. The package should include the following items:

- Airlink101 802.11g Wireless Cardbus Adapter
- Quick Installation Guide
- Installation CD (Driver/Utility/Manual)

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2. Installation

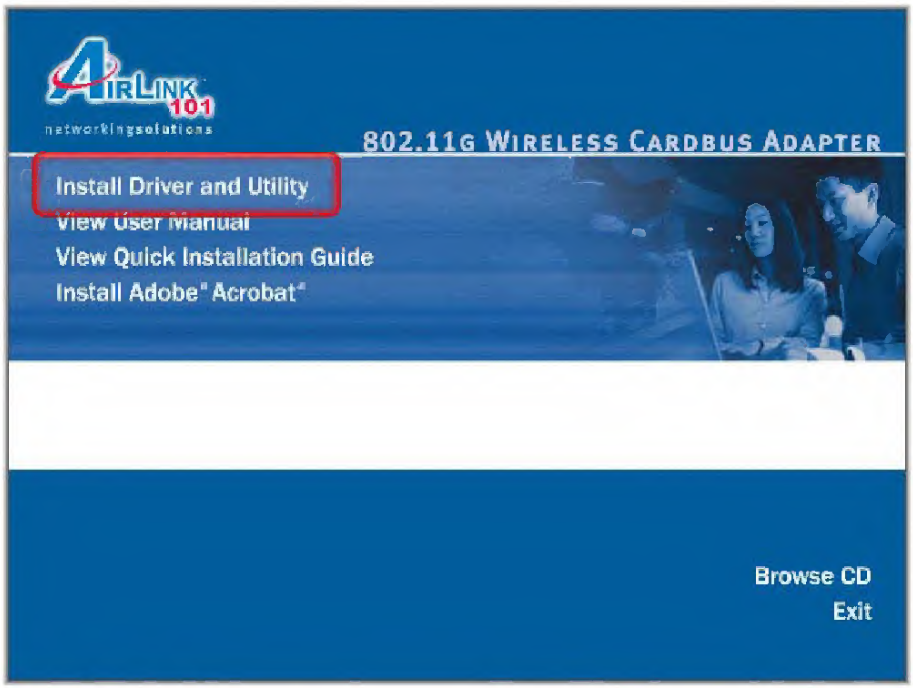
2.1 Install Driver & Utility

This section provides instructions on how to install the **802.11G Cardbus Adapter**. The driver is installed along with the utility.

Note: *Do not insert the Cardbus Adapter until you have reached the appropriate step.*

For Windows 98SE and ME users, you may be prompted to insert the Windows 98SE or ME CD during the driver installation. Be sure to have your Windows 98SE or ME CD ready.

Step 1 Insert the Driver & Utility CD into your CD drive and select **Install Driver and Utility** from the menu.



Note: *If the Autorun screen doesn't appear automatically go to* ***Start***, ***Run***, *and type* ***D:\autorun.exe*** *(where* ***D*** *is the letter of your CD drive) and click* ***OK***.

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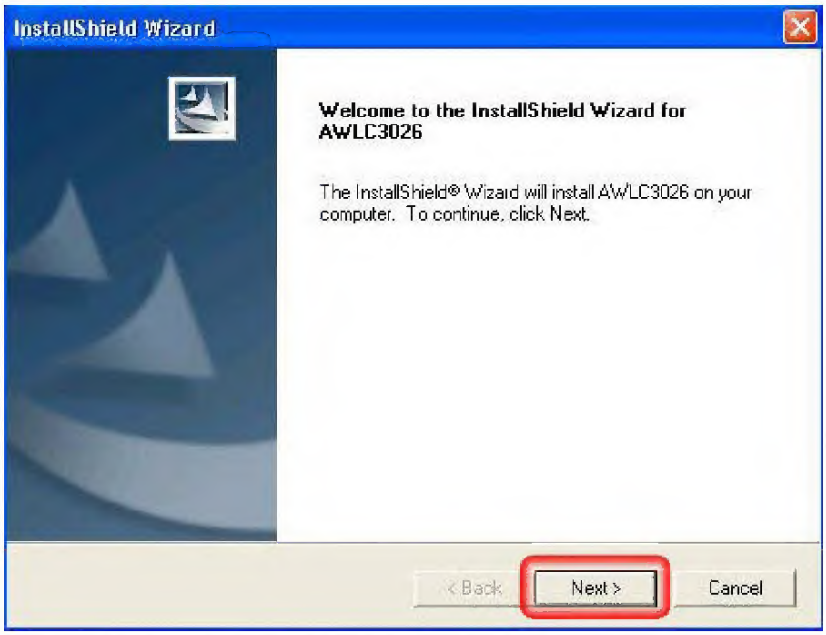
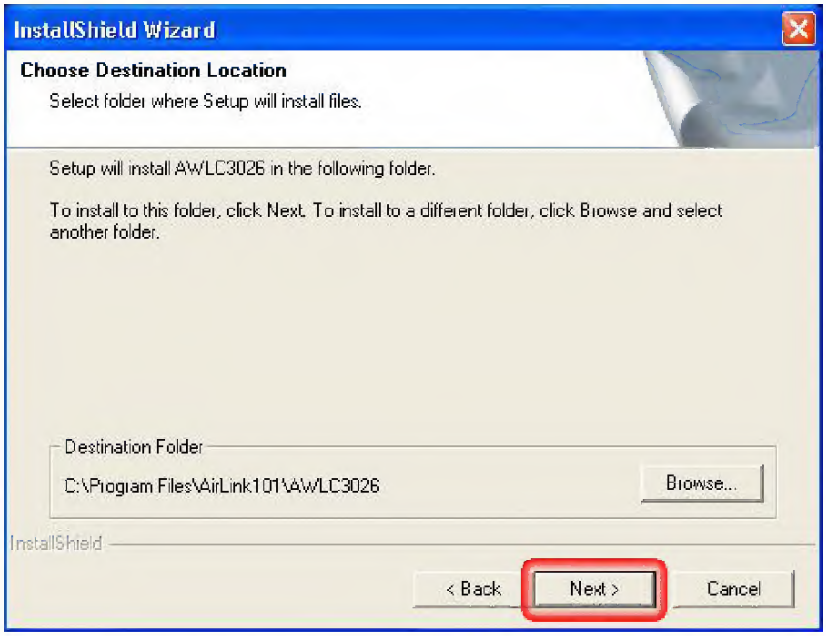
Step 2 Click **Next** at the welcome screen.


InstallShield Wizard
Welcome to the InstallShield Wizard for AWLC3026
The InstallShield® Wizard will install AWLC3026 on your computer. To continue, click Next.
< Back
Next >
Cancel

Step 3 Click **Next** to accept the default destination folder.


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install AWLC3026 in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\AirLink101\AWLC3026
Browse...
InstallShield
< Back
Next >
Cancel

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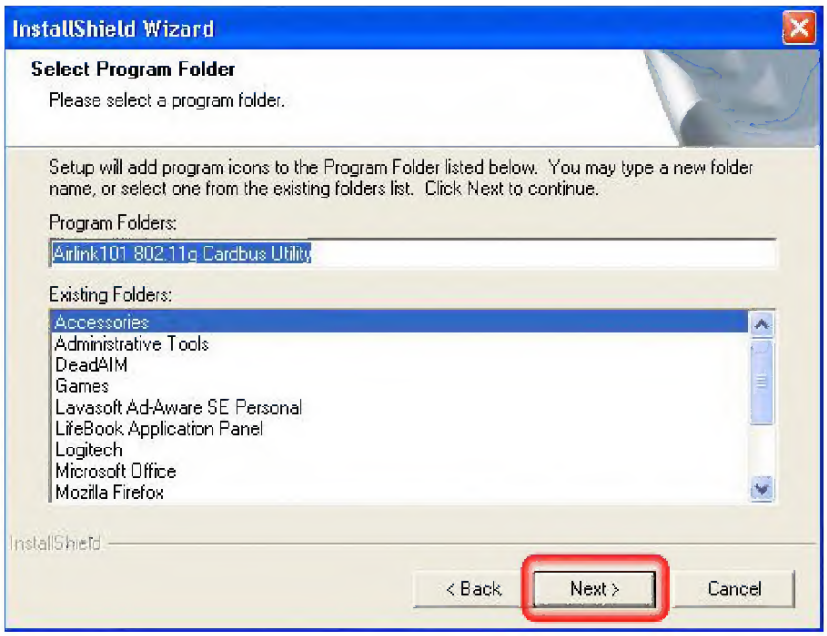
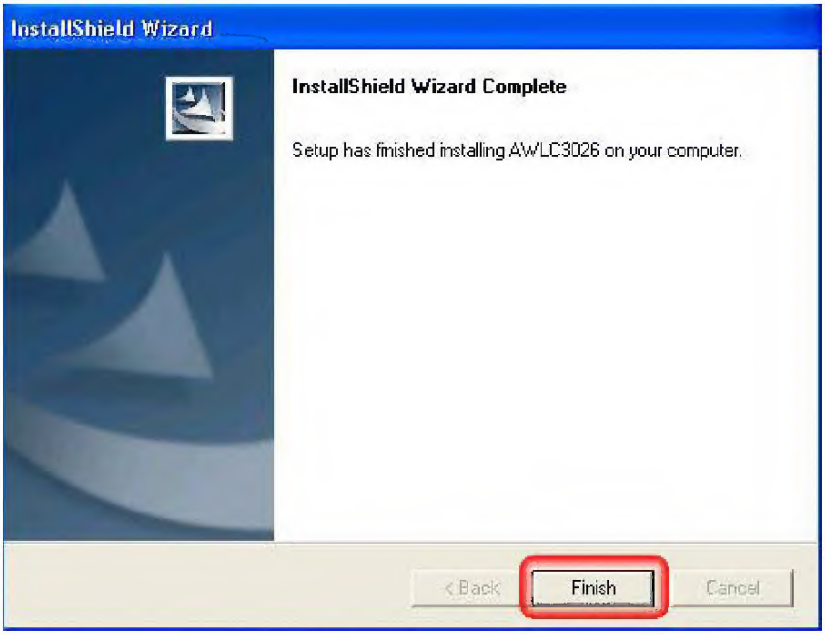
Step 4 Click **Next** to select the appropriate program folder from the list of names.



Step 5 Select **Finish** to complete driver installation on to your computer.



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Step 6 Now, insert the Cardbus Adapter into your computer. The *Found New Hardware Wizard* will appear once your computer detects the adapter. Select **No, not this time** on the menu and press **Next** to continue.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

Step 7 Select **Install the software automatically** and click **Next.**

Found New Hardware Wizard
This wizard helps you install software for:
Ailink101 802.11g Cardbus Adapter
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

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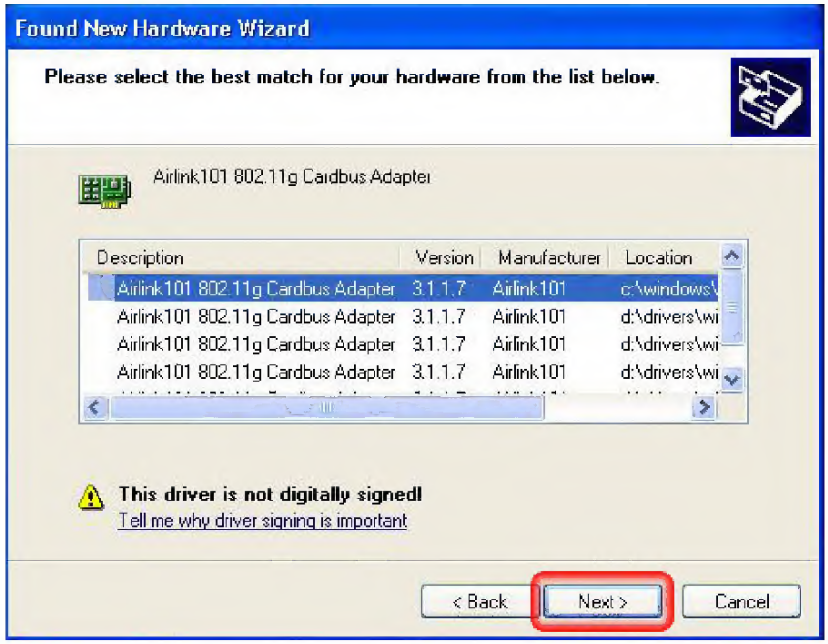
Step 8 The Found New Hardware Wizard will now show you the list of drivers available for your Cardbus Adapter. Windows will automatically select the driver most suitable for the installation. Make sure the driver is highlighted and press **Next** to continue.


Found New Hardware Wizard
Please select the best match for your hardware from the list below.
Airlink101 802.11g Cardbus Adapter
Description
Version
Manufacturer
Location
Airlink101 802.11g Cardbus Adapter 3.1.1.7 Airlink101 c:\windows\
Airlink101 802.11g Cardbus Adapter 3.1.1.7 Airlink101 d:\drivers\wi
Airlink101 802.11g Cardbus Adapter 3.1.1.7 Airlink101 d:\drivers\wi
Airlink101 802.11g Cardbus Adapter 3.1.1.7 Airlink101 d:\drivers\wi
This driver is not digitally signed!
Tell me why driver signing is important
< Back
Next >
Cancel

Step 9 Click **Continue Anyway** at the Windows Logo Screen.
(For Windows 2000, click **Yes** at the Digital Signature Not Found prompt).

Hardware Installation
The software you are installing for this hardware:
Airlink101 802.11g Cardbus Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

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Step 10 Click **Finish** to complete installation. (Restart the computer for Windows 98SE and ME).

Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Airlink101 802.11g Cardbus Adapter
Click Finish to close the wizard.
< Back
Finish
Cancel

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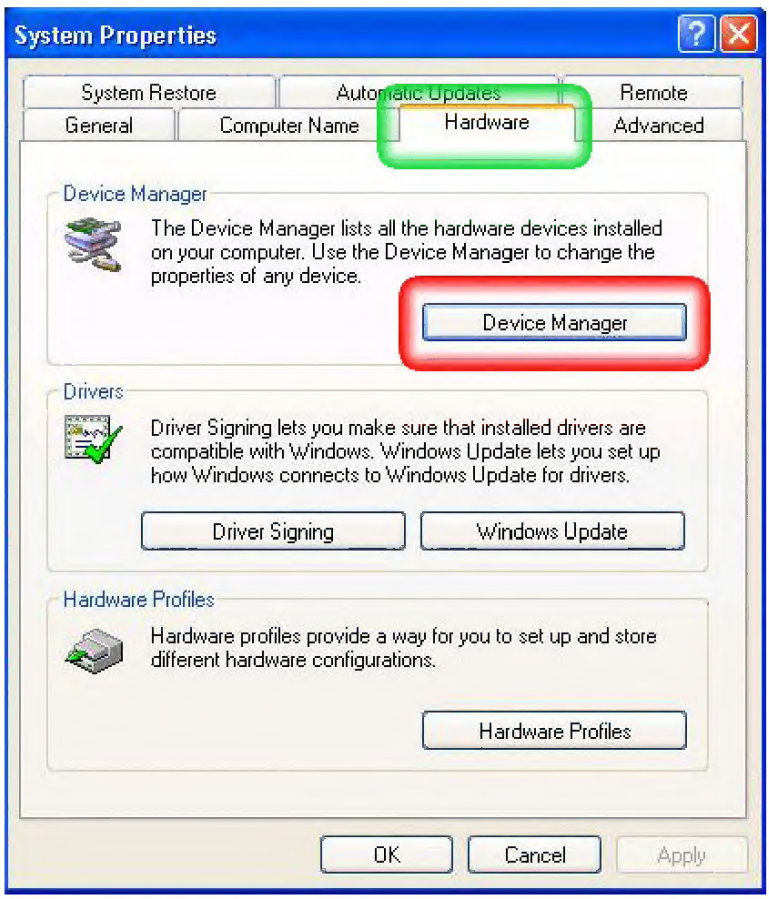
2.2 Verify Driver Installation

To verify if the driver has been installed successfully, please perform the following steps.

Step 1 Right-click on **My Computer** from your desktop and select **Properties**.

Step 2 Select the **Device Manager** tab. (For Windows 2000/XP, select the **Hardware tab** first then click on **Device Manager**).


System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

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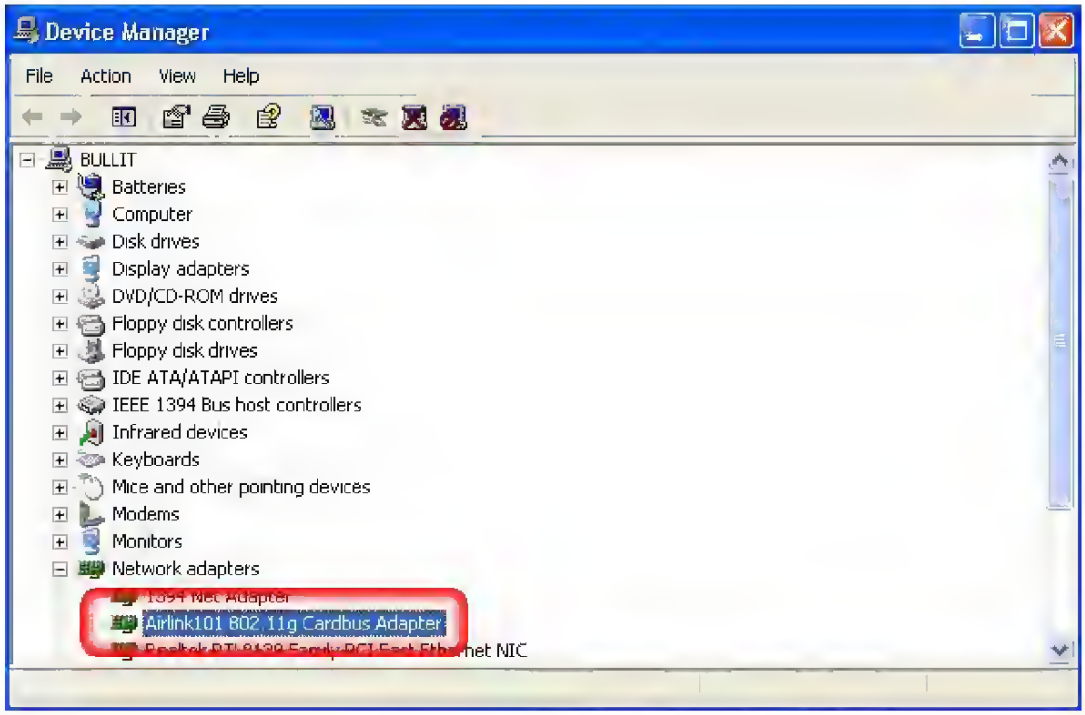
Step 3 Expand **Network adapters** from the list and verify that **Airlink101 802.11g Cardbus Adapter** is listed and no yellow question mark is beside it.



If **Airlink101 802.11g Cardbus Adapter** is not listed, or you see a yellow question mark beside it, please re-install the driver again.

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3. Initializing the 802.11g Wireless Cardbus Adapter

This section describes how to connect your **Airlink101 802.11g Cardbus Adapter** to a wireless network.

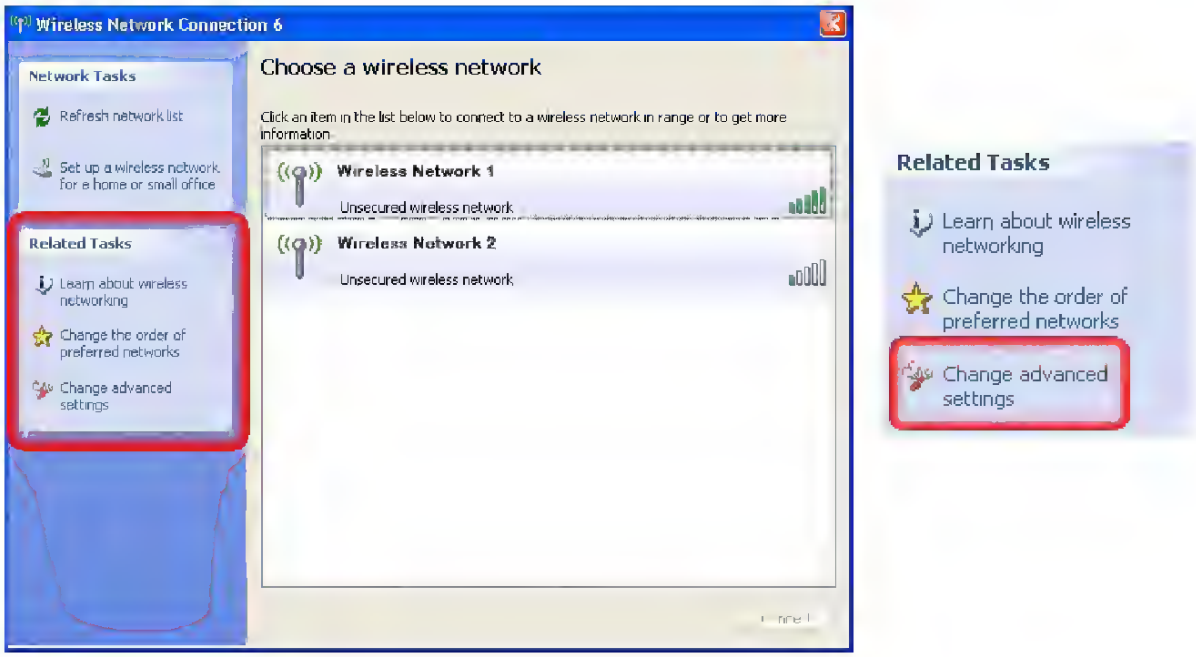
Note to Windows XP Users:

You must disable the Wireless Zero Configuration Utility in order to use the bundled Wireless Utility. Please follow the steps below to disable XP's wireless utility.

3.1 Disabling the Windows Wireless Zero Configuration Utility (Windows XP only)

Step 1 Double-click on the **Wireless Network Connection Icon** in the system tray to open the Windows Wireless Utility.

Step 2 In the left hand margin, look for the box labeled **Related Tasks**. Inside the box, click on **Change advanced settings** to access the Windows Wireless Utility properties.


Wireless Network Connection 6
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information
Wireless Network 1
Unsecured wireless network
Wireless Network 2
Unsecured wireless network
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings

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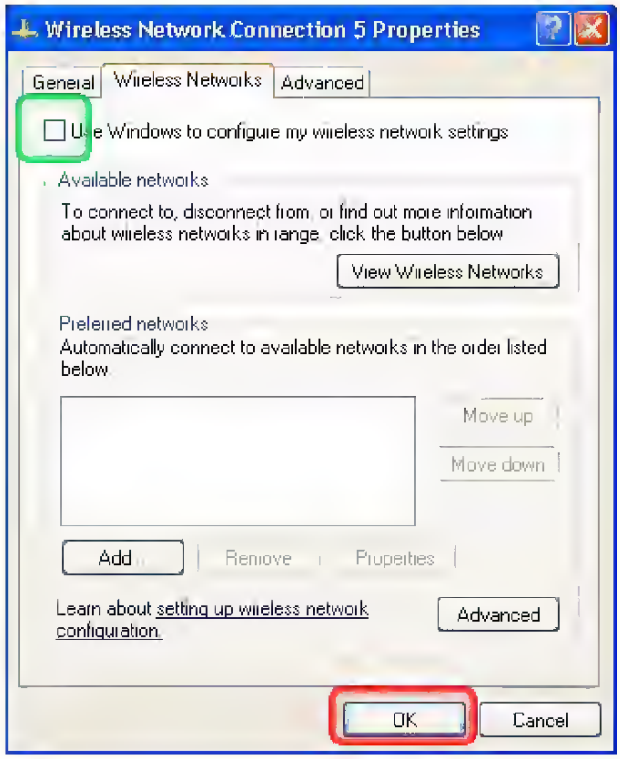
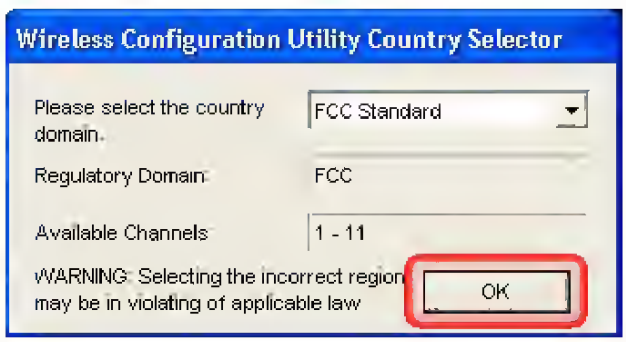
Step 2 Go to the **Wireless Networks** tab, uncheck the **"Use Windows to configure my wireless network settings"** check box and click **OK**.



3.2 Setting up your 802.11g Wireless Cardbus Adapter

Step 1 After you have completed installing the bundled Driver and Utility programs, Windows will automatically recognize the Wireless Cardbus Adapter and start the Wireless Utility program.

The following window will appear. Select the country domain and click **OK** to continue.



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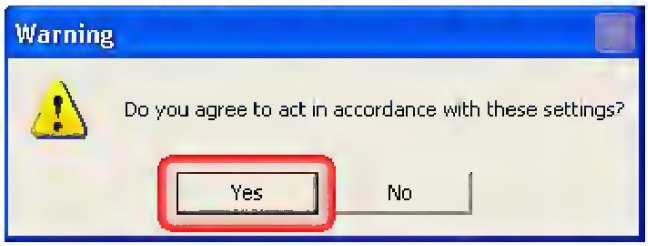
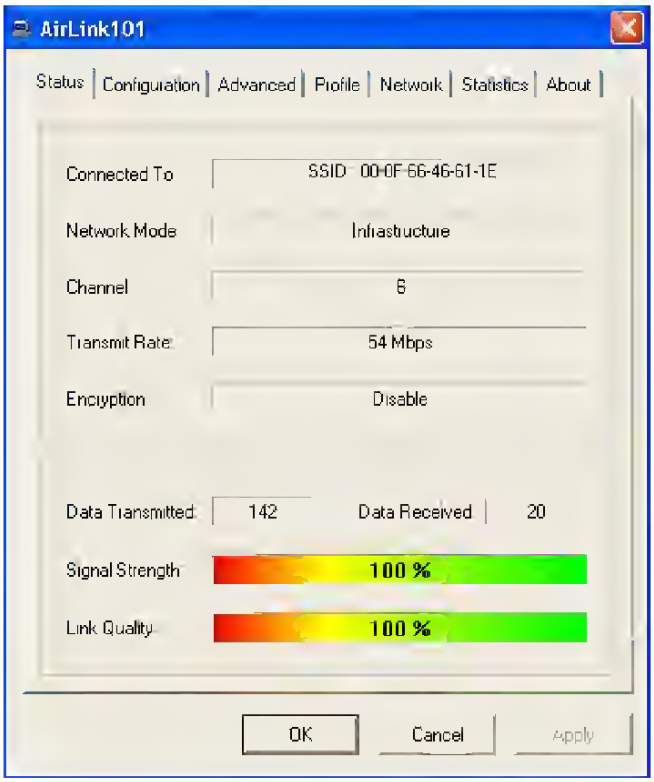
Step 2 Click **Yes** to confirm your country selection and proceed.



Step 3 The Wireless Utility will now appear and begin to scanning for any available wireless networks in its range. Once it connects to a wireless network, the SSID will display on the top of the window and the bottom of the window will display the Signal Strength and Link Quality.



Congratulations! You have now successfully installed and configured your 802.11g Wireless Cardbus Adapter. However, for further settings, please see **Chapter 4**.

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4. Configuring the 802.11g Wireless Cardbus Adapter

This section describes the various functions of the Wireless Utility that you can configure, including the settings of wireless encryption.

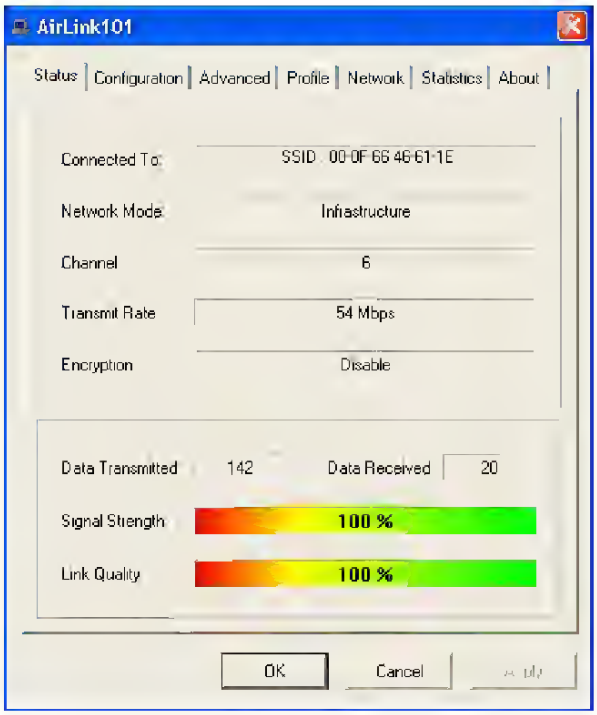
There are two ways to access the Wireless Utility:

1. Click **Start** > **Programs** > **Airlink101 802.11g Cardbus Utility**

2. Double-click on the **Airlink101 Wireless Icon** located in the system tray

4.1 The Status Tab

Once you have accessed the Wireless Cardbus Adapter utility, you will have additional menus to configure your adapter. The first window that appears once you open the utility is the Status tab.



This window displays all the information for the Wireless Cardbus Adapter under its current configuration settings. This information includes the selected SSID, Network Mode, Channel, Transmit Rate, Encryption Type and Signal Strength/Link Quality.

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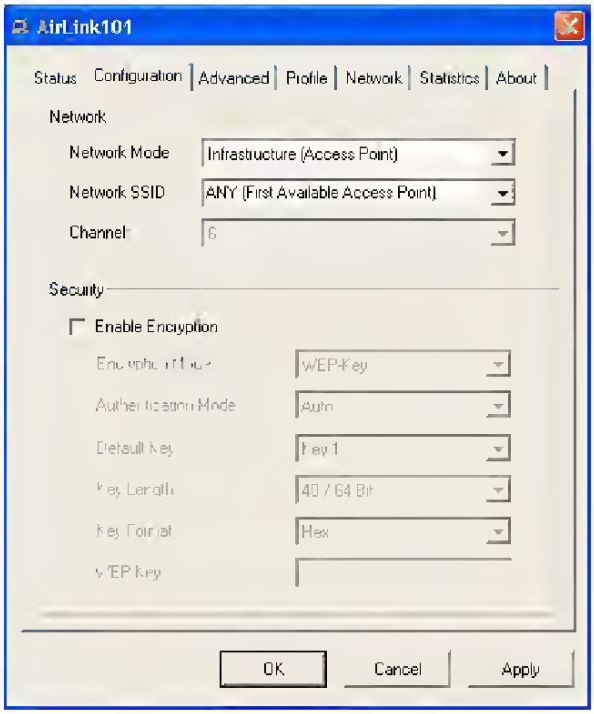
4.2 The Configuration Tab

There are two parts to the Configuration Tab: Network and Security.



Network Settings There are three options:

- *Network Mode*: Select from **Infrastructure** (Access Point) or **Ad-Hoc** (Computer-to-Computer.
- *Network SSID*: Select from **ANY** (First available) or any of the detected SSID's.
- *Channel*: Displays the current Wireless Channel.

Security In order to utilize the Security function, click the **Enable Encryption** box.

From here you can choose:

- *Encryption Mode:* You may select from **WEP-Key**, **WEP-Passphrase**, and **WEP-PSK**.
- *Authentication Mode:* You may select from **Auto**, **Open System**, and **Shared Key**.
- *Default Key:* Select from the list of default keys.
- *Key Length:* Select the appropriate key length, which may be **40/64 Bit** or **128 Bit.**
- *Key Format*: Select either **Hex** or **ASCII**
- *WEP-Key*: Use this box to enter in your designated WEP-Key.

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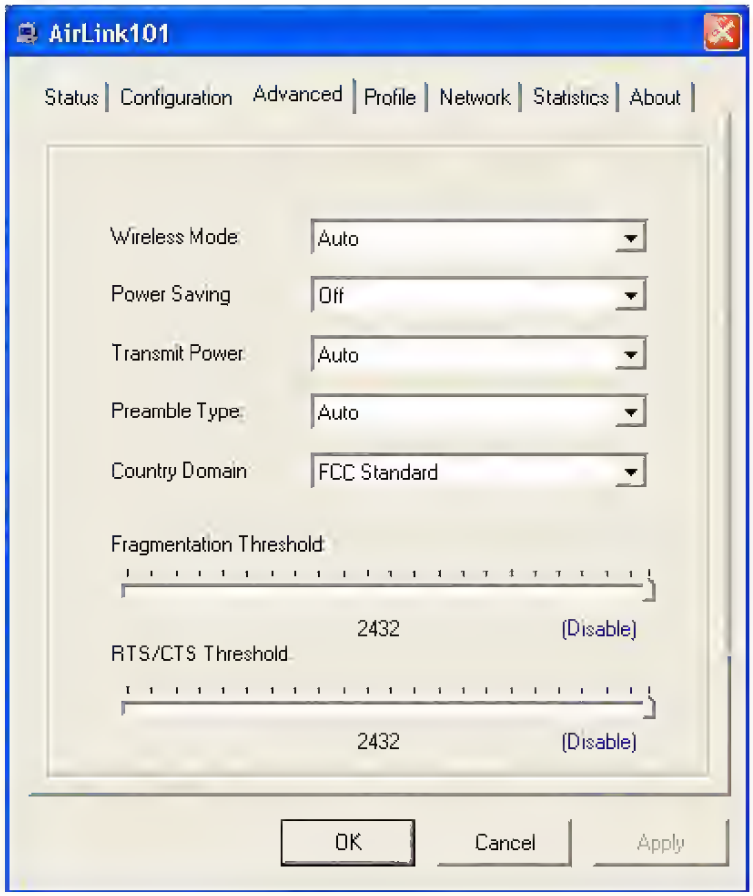
4.3 The Advanced Tab

The Advanced Tab allows you to access the advanced configuration functions for the Wireless Utility.



From this window, you may select the following:

- *Wireless Mode*: Choose to select 802.11b or 802.11g (Ad-Hoc mode only).
- *Power Saving*: This allows you to select the appropriate power-saving mode: **Normal**, **Maximum**, or **Off**.
- *Transmit Power*: This allows you to set the appropriate level of transmit power
- *Preamble Type*: Select either **Auto**, **Long Tx Preamble**, or **Short Tx Preamble**.
- *Country Domain*: Select the appropriate country of location.

The two levels on the bottom of the window also allow you to customize your *Fragmentation Threshold* and your *RTS/CTS Threshold*.

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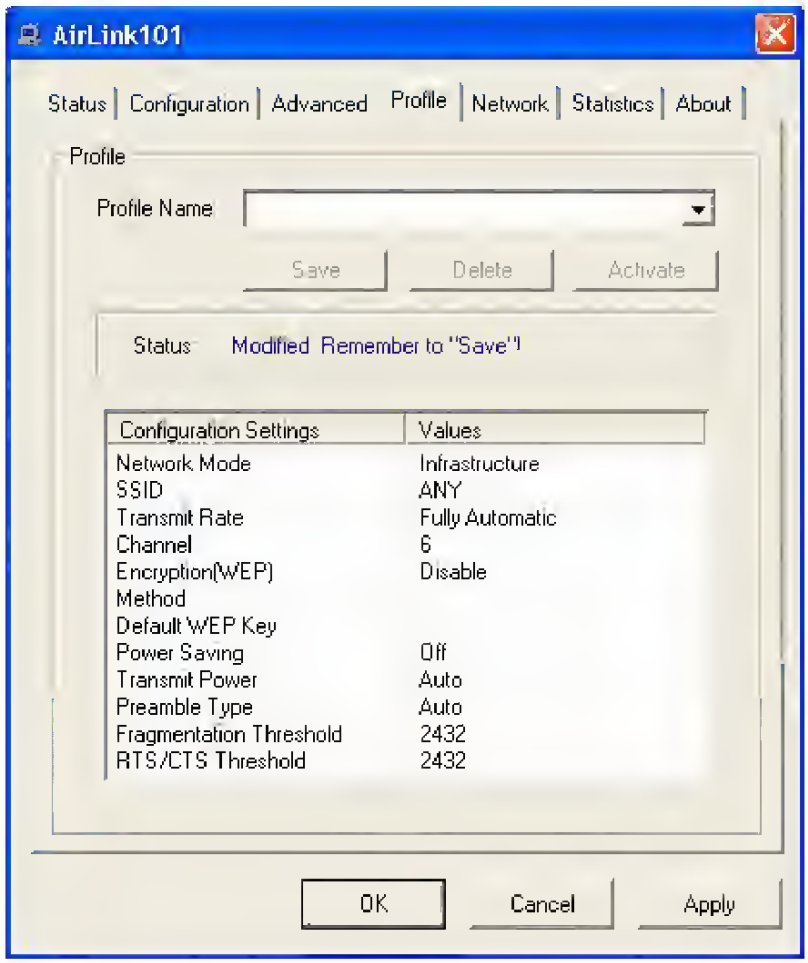
4.4 The Profile Tab

The Profile Tab allows you to create/load/delete wireless profiles. Wireless profiles allow you to save all of your Configuration Settings and then reload them at any time if they have been changed.

To create a Profile: Type a name in the Profile Name box and click **Save**.



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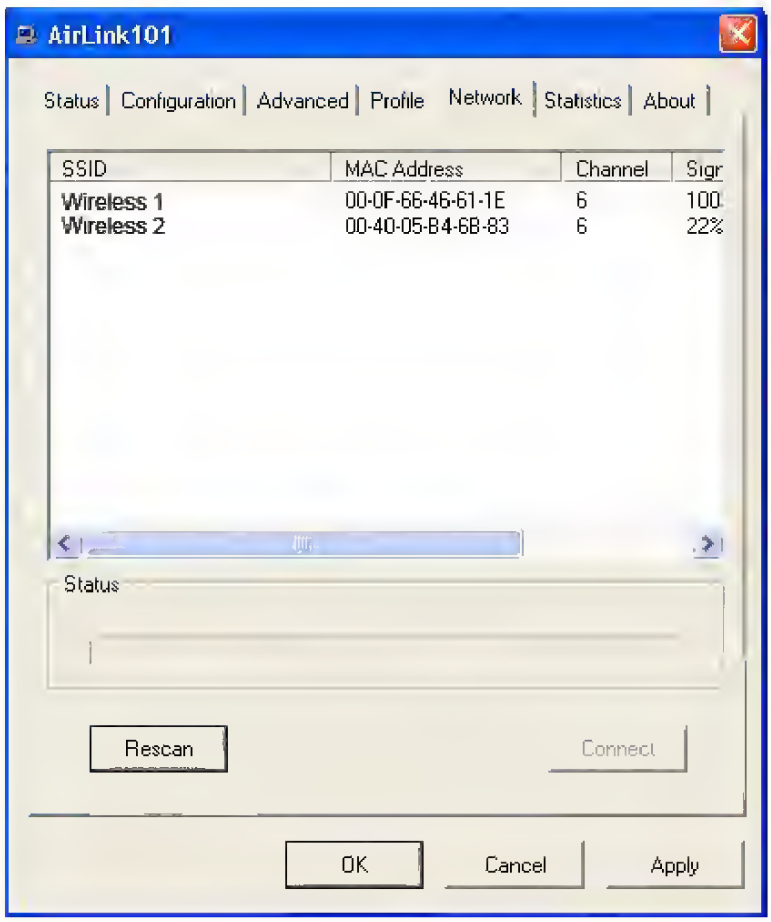
4.5 The Network Tab

The Network Tab displays all the available Wireless Networks within the Cardbus Adapters detectable range. You may click **Rescan** at any time to refresh the wireless network availability.

To select a specific network, double-click the SSID.



The Network window also displays the MAC Address of the wireless signal, the Channel, the Signal strength, the Security status, and the Mode.

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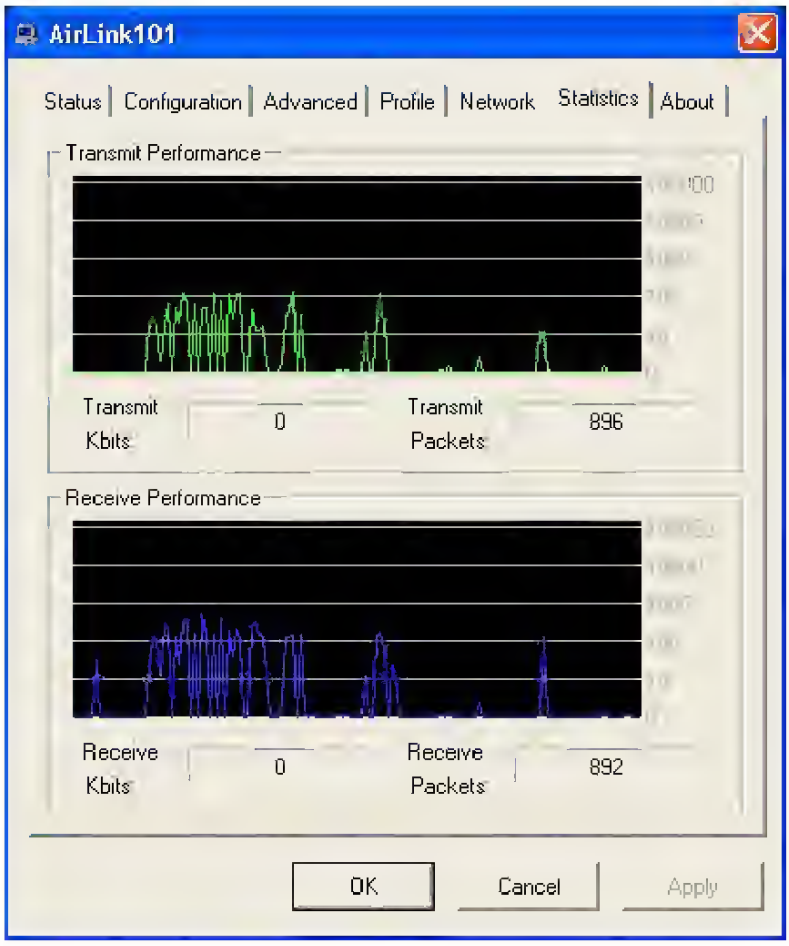
4.6 The Statistics Tab

The Statistics Tab allows users to view their Transmit Performance and Receive Performance. The charts display the amount of information being sent/received over specific time intervals.

From here, you may easily observe the amount of information being transferred over your wireless adapter.



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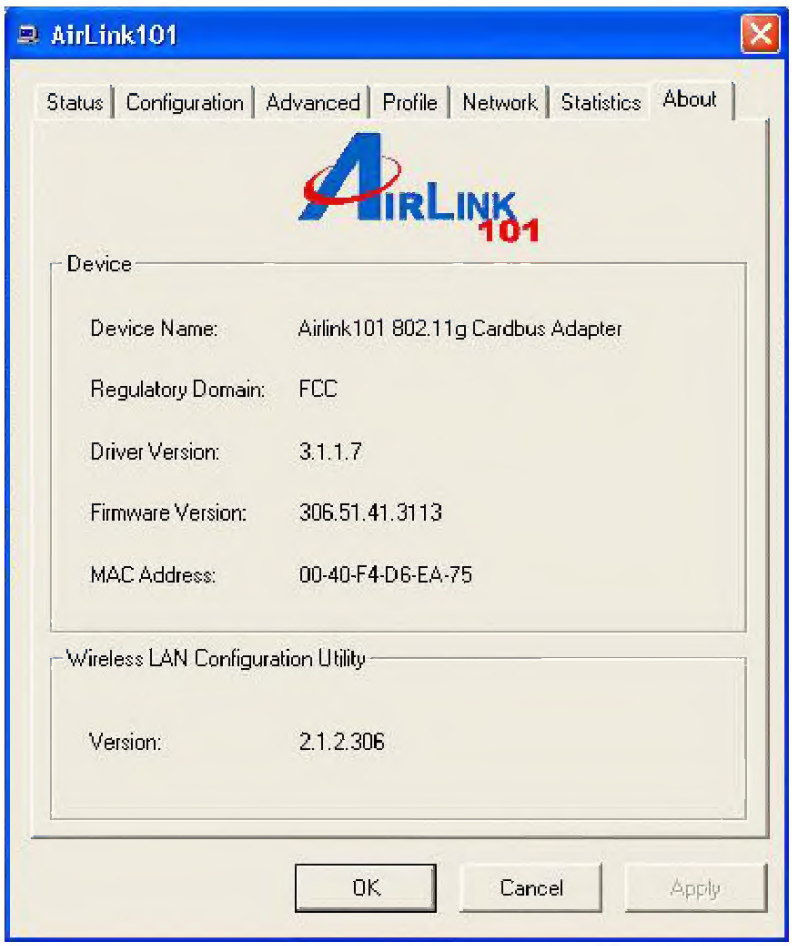
4.7 The About Tab

The About Tab displays important information about the Wireless Adapter including the Device Name, Regulatory Domain, Driver Version, Firmware Version, MAC Address, as well as the Wireless LAN configuration Utility.



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5. Troubleshooting

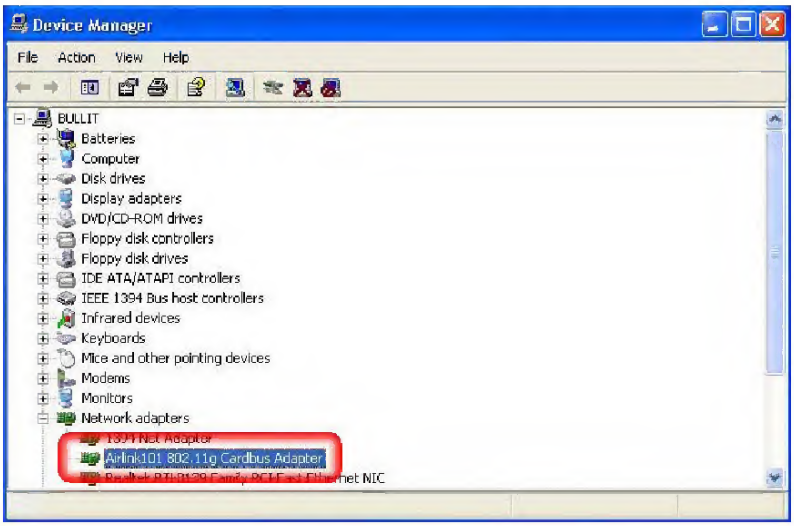
1. How do I verify if the driver is installed correctly?

To verify if the driver for the wireless adapter is installed correctly, follow the steps below.

Step 1 Right-click on **My Computer** from your desktop and choose **Properties**.

Step 2 Select the **Device Manager** tab. (For Windows 2000/XP, select the **Hardware tab** first then click on **Device Manager**).

Step 3 Expand **Network adapters** and verify that **Airlink101 802.11g Cardbus Adapter** is in the list and that no yellow question mark or exclamation mark is beside it.



Step 4 Close the Device Manager. If you do not see Airlink101 802.11g Cardbus Adapter in the list, try to reinstall the driver again.

2. The computer does not recognize the Cardbus adapter.

Make sure that the Cardbus adapter is properly seated in the computer's Cardbus bus slot. If there are additional free Cardbus slots, try to install the Cardbus adapter in those slots.

3. The CARDBUS adapter does not work properly after the driver is installed.

Restart the computer. In some cases, it will be necessary to restart the computer after installing the driver. If the device is not working properly and a yellow exclamation mark is displayed, then there is probably a resource conflict. In this case, make sure the computer system has a free IRQ and if necessary, uninstall the driver, restart the system, and repeat the driver installation procedure.

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6. Technical Specifications

Radio Technology	IEEE 802.11g (OFDM) IEEE 802.11b (DSSS)
Interface	Cardbus Type II specification 32bit data bus
Section 1.01 Receiver Sensitivity	54Mbps: Typical - 73dBm @ 10% PER 11Mbps: Typical - 85dBm @ 8% PER
Section 1.02 Wireless LAN Frequency Range	2412 ~ 2484 MHz ISM band (channels 1 ~ 11)
Section 1.03 Transmit Power	Minimum 15dBm typically @ 802.11b Minimum 12dBm typically @ 802.11g
Section 1.04 Driver Support	Windows 98(SE) / 2000 / ME / XP
Security	64/128-bits WEP Encryption Wireless Fidelity Protected Access (WPA)
Antenna	Integrated Microstrip dual diversity antennas
Section 1.05 Continuous Current Consumption	240mA typ. for receive mode 530mA typ. for transmit mode
Section 1.06 Dimensions (W x H x D)	118 x 54 x 7 mm (W x H x D)
Section 1.07 Certifications	FCC Part 15.247 for US

7. Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

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*Theoretical maximum wireless signal rate based on IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate.

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